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Conference Abstract

Two Million Contributions From Citizen Scientists Accelerate the Digitization of the Berlin Herbarium

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Abstract

In 2016, the Botanic Garden Berlin decided to translate into German, the citizen science platform "Les Herbonautes" (Rouhan et al. 2016, developed at the Natural History Museum in Paris) and to integrate it into the digitization workflows of Herbarium Berolinense. "Die Herbonauten" is a web-based platform on which citizen scientists can contribute to the transcription of digital herbarium specimens and their labels.

Using a quiz module, users first learn about the various information elements on herbarium labels and their correct semantic assignment and recording. The actual data entry then takes place in so-called "missions," in which herbarium specimens are compiled, e.g., to support work on specific scientific questions. In addition to data entry, there is a forum in which users can discuss problems and their solutions, for example if there is disagreement about the correct transcription of a text element. The forum is moderated by scientific staff of the Herbarium Berlin, who provide support particularly when the knowledge of the collection curators is needed to solve problems.

In the course of numerous missions, the knowledge about transcriptions of herbarium specimens was summarized and structured in an evolving and extensive wiki system in German. This wiki has developed into a unique and valuable knowledge base for which an English translation is planned for use by an international audience.

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To date, 640 registered Herbonauten have made around two million data contributions. Citizen science has thus become an indispensable component of the herbarium's information management. For the further development of the platform, we are experimenting, among other things, with expanding the scope, e.g., to include the recording of character data, and with combining citizen science approaches with AI-based transcription algorithms. In the context of the EU project, Transforming European Taxonomy through Training, Research and Innovations (TETTRIs), the Herbonauten carry out joint missions with other citizen science platforms, where selected specimens are processed by communities that are particularly qualified, for example because they have the necessary knowledge of languages or local geography.

Keywords

label transcription, digitization workflow, herbarium specimens

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Conflicts of interest

The authors have declared that no competing interests exist.

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